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"Welcome Shelter Near Trail's End"

FEDERAL-STATE COOPERATIVE
SNOW SURVEYS AND IRRIGATION WATER FORECASTS

FOR OREGON

FEBRUARY 1, 1947

RECEIVED
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U. S. DEPARTMENT OF AGRICULTURE

By
Division of Irrigation, Soil Conservation Service
United States Department of Agriculture
and
Oregon Agricultural Experiment Station

Data included in this report were obtained by the agencies named above in cooperation with the Oregon State Engineer, U. S. Forest Service, National Park Service and other Federal, State and local organizations.

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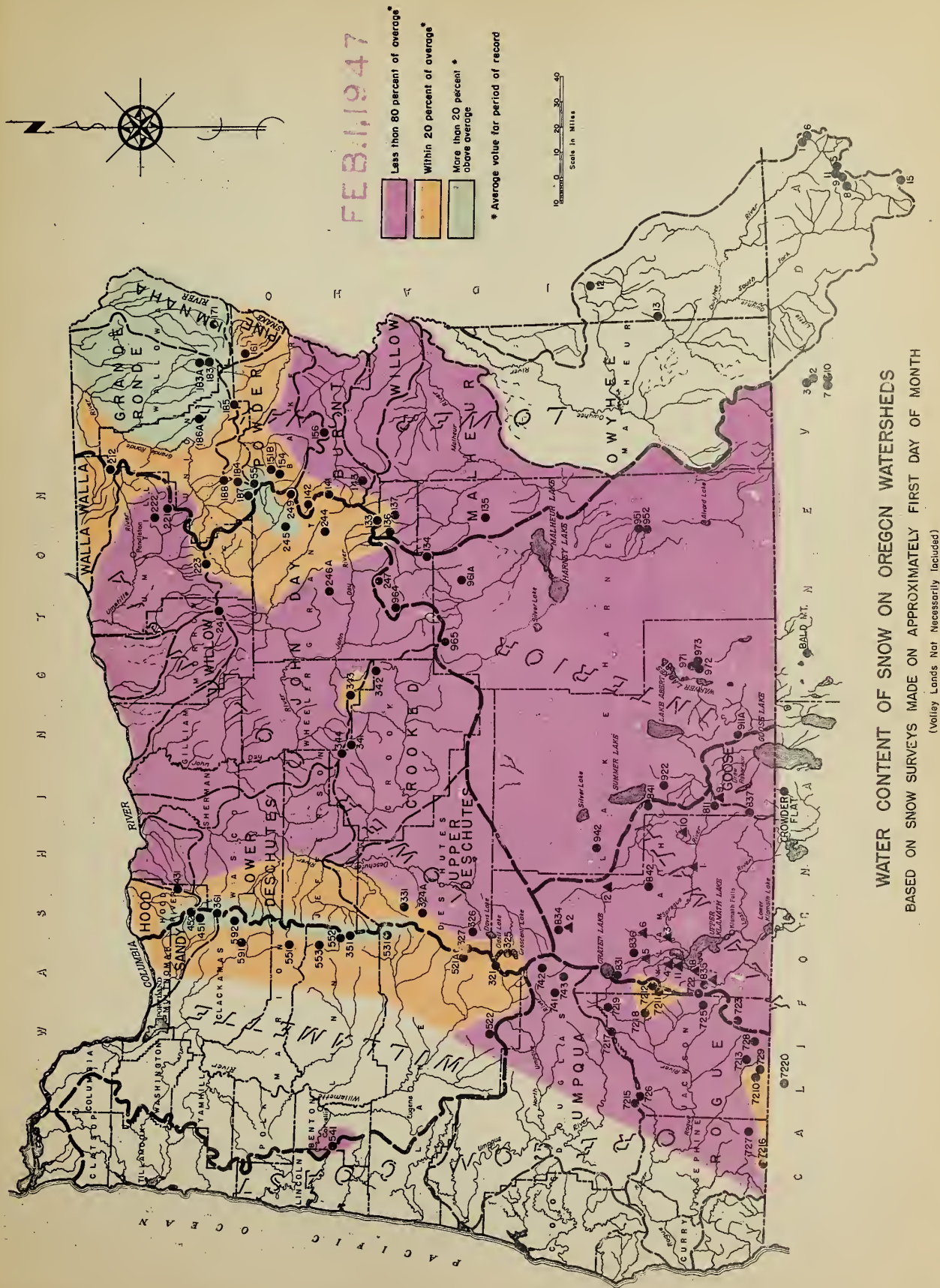
FEDERAL-STATE COOPERATIVE
SNOW SURVEYS AND IRRIGATION WATER FORECASTS
FOR
OREGON

Report Prepared

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WATER CONTENT OF SNOW ON OREGON WATERSHEDS
 BASED ON SNOW SURVEYS MADE ON APPROXIMATELY FIRST DAY OF MONTH
 (Valley Lands Not Necessarily Included)

INDEX TO SNOW COURSES

| Number | Name | Elev. | Number | Name | Elev. | Number | Name | Elev. | Number | Name | Elev. |
|--|------------------------|-------|--------|------------------------|-------|--------------------|-------------------------|-------|--------|--------------------------|-------|
| UPPER COLUMBIA DRAINAGE | | | | | | | | | | | |
| Lower Snake in Oregon | | | | | | | | | | | |
| OWYHEE RIVER | | | | | | | | | | | |
| 181 | Big Bend | 6800 | 212 | WALLA WALLA RIVER | 5070 | 551 | Breitenbush | 2325 | 942 | SILVER LAKE | 4900 |
| 182 | Buckskin, Lower | 6800 | | Tollgate | | 522 | Cascade Summit | 4880 | | Silver Creek | |
| 183 | Buckskin, Upper | 8200 | | UMATILLA RIVER | | 527 | Champion | 4500 | | CHEWAUCAUN RIVER | |
| 184 | Fish Creek | 7900 | 222 | Emigrant Springs | 3925 | 531 | Charlton Lake | 4755 | 922 | MILL Creek | 6200 |
| 185 | Fry Canyon | 6800 | 223 | Lucky Strikes | 5050 | 533 | Hogg Pass | 4800 | | | |
| 186 | Gold Creek Ranger Sta. | 6600 | 221 | Meacham | 4300 | 541 | McKenzie | 4800 | | HARNEY BASIN | |
| 187 | Granite Peak | 8600 | 212 | Tollgate | 5070 | 553 | Marion Forks | 3620 | | | |
| 188 | Jack Creek, Lower | 7000 | | WILLOW CREEK | | 552 | Mary's Peak | 3620 | | | |
| 189 | Jack Creek, Upper | 7800 | | Arbuckle Mountain | 5400 | 552A | Santiam Junction | 3990 | | | |
| 190 | Martin Creek | 7000 | 241 | JOHN DAY RIVER | | | Waldo Lake | 5500 | | | |
| 191 | Rodeo Flat | 7000 | | Arbuckle Mountain | 5400 | KLAMATH LAKE BASIN | | | | | |
| 192 | Silver City | 6400 | | Beech Creek Summit | 4800 | 811 | Annie Spring | 6018 | 973 | Deer Creek | 6670 |
| 193 | Silvies | 6900 | 241 | Blue Mountain Spring | 5900 | 722 | Billie Creek Divide | 6000 | 952 | Fish Creek | 7900 |
| 194 | South Mountain No. 2 | 6340 | 133 | Blue Mountain Summit | 5098 | 834 | Chemult No. 1 | 4760 | 971 | Hart Mountain | 6350 |
| 195 | Taylor Canyon | 5200 | 141 | Blue Mountain Summit | 5098 | Calif. | Crowder Flat | 5200 | 961A | Idylwild Park | 5200 |
| MALHEUR RIVER | | | | | | | | | | | |
| 133 | Blue Mountain Spring | 5900 | 244 | Dixie Springs | 6650 | 723 | Hyatt Prairie Reservoir | 4900 | 964 | Izee Summit | 5293 |
| 137 | Crane Prairie | 5375 | 249 | Gold Center | 5340 | 837 | Lake of the Woods No. 1 | 4960 | 134 | Rock Spring | 5100 |
| 136 | Lake Creek | 5120 | 249 | Izee Summit | 5293 | 841 | Quartz Mountain | 5320 | 951 | Snow Mountain | 6900 |
| 134 | Rock Spring | 5100 | 964 | Olive Lake | 6000 | 842 | Seven Lakes No. 2 | 6200 | 965 | Starr Ridge | 6300 |
| 135 | Stinking Water | 4800 | 247B | Snow Mountain | 6300 | | Strawberry | 5600 | 247B | | 5150 |
| BURNT RIVER | | | | | | | | | | | |
| 143 | Barney Creek | 5950 | | Starr Ridge | 5150 | | Sumner Rim | 7200 | | WARNER LAKE | |
| 141 | Blue Mountain Summit | 5098 | | DESCUTES RIVER | | | Sun Mountain | 5350 | 911A | Camea Creek | 5720 |
| 136 | Doolley Mountain | 5430 | 326 | Caldwell Ranch | 4400 | | Taylor Butte | 5100 | | GUANO LAKE | |
| 142 | Tipton | 5100 | 321 | Cascade Summit | 4880 | 911A | | | 972 | Bald Mountain | 6720 |
| POWDER RIVER | | | | | | | | | | | |
| 155 | Anthony Lake | 7125 | 327 | Clear Lake | 3500 | | Quartz Mountain | 5320 | | Guano Creek | 6480 |
| 154 | Bourne | 5800 | 325 | Crescent Lake | 4760 | 837 | Strawberry | 5600 | | WEST COAST DRAINAGE | |
| 156 | Doolley Mountain | 5430 | 343 | Derr | 5670 | | | | | UMPUQUA RIVER | |
| 151B | Killerton Meadows | 5400 | 351 | Hogg Pass | 4755 | | | | | Champion | 4500 |
| 249 | Gold Center | 5340 | 344 | Marke Creek | 4540 | | | | | Diamond Lake | 5315 |
| 184 | Summit Springs | 6000 | 324A | New Dutchman Flat | 6400 | | | | | Goolaway Gap | 3000 |
| 185 | Taylor Green | 5740 | 341 | Ochoco Meadows | 5200 | | | | | Goolaway Mountain | 3730 |
| PINE CREEK | | | | | | | | | | | |
| 161 | Schneider Meadows | 5400 | 342 | Snow Mountain | 6300 | | | | | N.Umpqua near Lake Creek | 4215 |
| IMNAHA RIVER | | | | | | | | | | | |
| 171 | Coverdale | 4250 | 343 | Tamarack | 4800 | | | | | Trap Creek | 3800 |
| GRANDE RONDE RIVER | | | | | | | | | | | |
| 183 | Aneroid Lake | 7480 | 351 | Three Creeks Meadows | 5600 | | | | | Whaleback | 5140 |
| 183A | Aneroid Lake No. 2 | 7000 | | HOOD RIVER | | | | | | ROQUE RIVER | |
| 155 | Anthony Lake | 7125 | 431 | Brooks Meadows | 4300 | | | | | Althouse | 4400 |
| 188 | Beaver Reservoir | 5340 | | SANDY RIVER | | | | | | Annie Spring | 6018 |
| 187 | Camp Carson | 5970 | 361 | Clear Lake | 3500 | | | | | Big Red Mountain | 6500 |
| 186A | Moss Spring | 5850 | 452 | Phlox Point - Mt. Hood | 5600 | | | | | Billie Creek Divide | 6000 |
| 184 | Summit Springs | 6000 | 451 | Still Creek | 3700 | | | | | Fish Lake | 4865 |
| 185 | Taylor Green | 5740 | | CLACKAMAS RIVER | | | | | | Goolaway Gap | 3000 |
| 212 | Tollgate | 5070 | 592 | Clackamas Lake | 3400 | | | | | Goolaway Mountain | 3730 |
| INDEX TO THE CALIFORNIA OREGON POWER COMPANY SNOW WATER STATIONS | | | | | | | | | | | |
| Klamath Lake Basin | | | | | | | | | | | |
| 1 | Beatty | 4300 | 1 | Beatty | 4300 | | | | | Grayback Peak | 6000 |
| 2 | Chemult | 4761 | 2 | Chemult | 4761 | | | | | Hyatt Prairie Reservoir | 4900 |
| 3 | Chiloquin | 4187 | 3 | Chiloquin | 4187 | | | | | Little Red Mountain | 6200 |
| 4 | Crystal | 4200 | 4 | Crystal | 4200 | | | | | Serags Mountain | 6800 |
| 5 | Fort Klamath | 4150 | 5 | Fort Klamath | 4150 | | | | | Seven Lakes No. 1 | 6200 |
| 6 | Kirk | 4533 | 6 | Kirk | 4533 | | | | | Seven Lakes No. 2 | 6200 |
| 7 | Lake of the Woods | 4960 | 7 | Lake of the Woods | 4960 | | | | | Silver Burn | 4630 |
| 8 | Pelican | 4200 | 8 | Pelican | 4200 | | | | | Siskiyou Summit | 4500 |
| 9 | Quartz Mountain | 5504 | 9 | Quartz Mountain | 5504 | | | | | South Fork Canal | 3500 |
| 10 | Richardson Ranch | 4800 | 10 | Richardson Ranch | 4800 | | | | | Wagner Butte | 6900 |
| 12 | Yamsey | 4600 | 12 | Yamsey | 4600 | | | | | Whaleback | 5140 |
| 9 | Quartz Mountain | 5504 | | GOOSE LAKE BASIN | | | | | | | |

February 1, 1947

PRELIMINARY WATER SUPPLY OUTLOOK

The annual mid-winter snow surveys indicate Oregon's 1947 water supply prospects are "fair" for the most part with "good" supplies available in the Wallowa, Blue, Elkhorn, and Northern and Central Cascade Mountains. Irrigated lands served chiefly from reservoirs can expect "fair" to "good" supplies provided largely by "hold over" from the heavy 1946 runoff.

Mountain snow cover, as of February 1, is below average on 73 percent of all measured snow courses in Oregon and on nearly all courses below 5000 feet in elevation. Water content of the snow at elevations above 5000 feet is 94 percent of average. Above-normal snow additions during February and March are needed if all irrigated lands are to have a sufficient supply.

Watershed soils are generally well saturated and mostly not frozen under the snow. This condition favors a well sustained runoff from the spring snow-pack.

Total water stored in all reservoirs is 13 percent less than of similar date last year, 26 percent more than of this date in 1945, 9 percent less than in 1944, and is 99 percent of average. 48 percent of important Oregon reservoirs are half full or better.

Precipitation accumulated in Oregon valleys since October 1 is below normal in all parts of the state except the Willamette Valley, Wallowa, and Blue Mountain areas.

Preliminary forecasts of April-September stream flow, based on existing mountain snow cover, and on the assumption that snow cover increase during February and March will be average, are listed on page 2 of this report.

PRELIMINARY STREAMFLOW FORECASTS, February 1, 1947

The following preliminary runoff forecasts are based on present mountain snow cover and on the assumption that average February and March increase of snow cover will occur. Greater or less than average increase in mountain snow cover during the next two months will correspondingly modify these estimates:

| BASIN AND STREAM | Apr.-Sept., inc. Streamflow in Thous. Ac.Ft. | | | | |
|---|--|-----------------|-------------------|-------------------|-------------------|
| | Forecast | Measured Runoff | | 10-yr. avg. | |
| | 1947 | 1946 | 1945 | 1944 | 1936-45 |
| <u>NORTHCENTRAL OREGON</u> | | | | | |
| Hood River, West Fork near Dee | 190.0 | a | 149.8 | 106.4 | 136.5 |
| <u>UMATILLA-WALLA WALLA</u> | | | | | |
| Umatilla River at Pendleton | 138.0 | a | 188.7 | 122.7 | 152.4 |
| Walla Walla R., S.Fk., nr. Milton | 63.0 | a | 69.8 | 55.8 | 62.8 |
| <u>NORTHEASTERN OREGON</u> | | | | | |
| Wallowa R., E.Fk. plus Power Plant | 14.0 | a | 10.9 | 8.5 | 10.1 |
| Hurricane Cr. near Joseph | 48.0 | a | 41.8 | 32.6 | 39.4 |
| Lostine R. near Lostine | 126.0 | a | 125.6 | 89.8 | 110.2 |
| Bear Creek near Wallowa | 63.0 | a | 65.5 | 55.3 | 62.6 |
| Grande Ronde River nr. LaGrande | 143.0 | a | 168.4 | 93.3 | 155.0 |
| <u>EASTERN OREGON</u> | | | | | |
| Strawberry Creek nr. Prairie City | 7.7 | a | 8.0 | 5.1 | 7.5 |
| Malheur R., Mid.Fk., nr. Drewsey | 42.0 | a | 80.4 | 27.2 | 73.2 |
| Malheur R., No. Fk., at Beulah | 36.0 | a | 53.6 | 29.9 | 56.9 |
| <u>HARNEY BASIN</u> | | | | | |
| Silvies River near Burns | 47.0 | a | 98.6 | 22.5 | 84.4 |
| <u>CENTRAL OREGON</u> | | | | | |
| Ochoco Reservoir Net Inflow | 5.0 | a | 29.6 | 5.3 | 18.0 |
| Crescent Lake Net Inflow | 14.0 | a | 11.1 | 9.2 | 12.7 |
| Odell Creek near Crescent | 27.0 | a | 24.1 | 20.1 | 24.4 |
| Tumalo Creek and Col. So. Canal | 41.0 | a | 38.5 | 30.5 | 41.8 |
| Squaw Creek near Sisters | 47.0 | a | 38.4 | 30.6 | 44.1 |
| <u>SOUTHCENTRAL OREGON</u> | | | | | |
| Deep Creek above Adel | 25.0 | a | 70.2 ^b | 40.1 ^b | 62.2 ^b |
| <u>KLAMATH BASIN</u> | | | | | |
| Upper Klamath Lake Net Inflow | 440.0 | 557.0 | 409.9 | 395.9 | 481.7 |
| <u>SOUTHERN OREGON</u> | | | | | |
| Applegate River near Ruch | 112.0 | a | 114.0 | 63.9 | 125.7 |
| Hyatt Prairie Reservoir Net Inflow | 4.0 | a | 5.8 | 4.2 | 5.8 |
| Fourmile Lake Net Inflow | 6.0 | a | 7.3 | 5.9 | 6.9 |
| Little Butte Creek, N.Fk., below Fish Lake (Natural Flow) | 11.5 | a | 13.8 | 11.5 | 13.3 |
| Rogue River No.Fk. above Prospect | 240.0 | a | 295.4 | 237.3 | 286.6 |
| Clearwater River above Trap Creek | 51.0 | a | 55.5 | 55.1 | 56.8 |
| No. Umpqua River below Lake Creek | 127.0 | a | 148.6 | 133.7 | 145.0 |
| No. Umpqua River at Toketee Falls | 295.0 | a | 348.1 | 295.4 | 336.8 |
| <u>WILLAMETTE VALLEY</u> | | | | | |
| Willamette River Mid. Fk. at Eula | 740.0 | a | 889.2 | 555.6 | 749.4 |
| McKenzie River at McKenzie Bridge | 540.0 | a | 533.9 | 422.7 | 512.7 |
| McKenzie River near Vida | 1120.0 | a | 1230.8 | 862.9 | 1103.9 |

a - 1946 Discharge record not available.

b - April-June rather than April-Sept.



COMPARISON OF SNOW COVER AS OF FEBRUARY FIRST WITH THAT OF PREVIOUS YEARS

Snow-stored water now present above 5,000 feet;

| | | | | | |
|--|----|-----|--|----|-----|
| As percent of that present one month ago | -- | 150 | As percent of that present one month ago | -- | 289 |
| As percent of that present one year ago | -- | 56 | As percent of that present one year ago | -- | 41 |
| As percent of that present two years ago | -- | 177 | As percent of that present two years ago | -- | 200 |
| As percent of average | -- | 94 | As percent of average | -- | 74 |

Snow water content on 99 percent of all measured courses is less than at this time in 1946, and in 75 percent of the comparisons is greater than on about February 1, 1945. Snow water content on 73 percent of all measured courses is less than average.

Given below is a tabulation showing inches snow-stored water for the February 1 record period on eleven scattered snow courses of greatest record length.

| Snow Water Content (Inches) as of About February 1 | | | | | | | | | | | | |
|--|-----------|----------|-----------|--------------|----------------|----------|--------------|----------|--------|--------|--------|---------|
| River | Deschutes | Umatilla | Walla | Walla | Burnt River | Malheur- | Goose | Klamath- | | | | |
| Basin | Three | Meacham | Toll-gate | Aneroid Lake | Tipton Springs | Blue Mt. | Crooked Lake | Klamath | Kogue | Annie | Spring | Unpqua |
| Snow | Creeks | | | | | | Mdws. | Chemult | | | | Diamond |
| Year | Meadows | | | | | | | | | | | Lake |
| 1929 | 11.2 | 9.2 | - | 7.7 | 10.1 | - | 4.3 | 6.5 | 20.3 | 20.3 | 8.9 | |
| 1930 | 13.1 | 3.5 | - | 15.2 | 3.8 | 4.4 | 3.8 | 4.6 | 19.5 | 19.5 | 5.5 | |
| 1931 | 8.1 | 6.2 | 14.1 | 13.0 | 8.2 | 3.6 | 5.6 | 6.1 | N.R. | N.R. | 8.4* | |
| 1932 | 23.4 | 9.3 | 23.7 | 28.4 | 8.7 | 13.7 | 10.0 | 12.8 | 22.3 | 22.3 | 26.2 | |
| 1933 | N.R. | 5.6 | N.R. | 26.0 | N.R. | 13.0 | 6.5 | 11.1 | N.R. | N.R. | 27.5 | |
| 1934 | 8.5 | 0.5 | 12.5 | N.R. | N.R. | N.R. | N.R. | T | N.R. | N.R. | 5.6 | |
| 1935 | 15.8 | 5.6 | 18.2 | 21.2 | N.R. | 11.0 | 9.4 | 8.6 | 33.4 | 33.4 | 7.6 | |
| 1936 | N.R. | 11.2 | 27.8 | 17.3 | N.R. | 13.4 | 13.5 | 9.4 | 37.2 | 37.2 | 12.0 | |
| 1937 | 18.5 | 9.3 | 16.6 | 9.3 | N.R. | 8.2 | 6.1 | 7.0 | N.R. | N.R. | 15.6 | |
| 1938 | 8.2 | 2.1 | 9.7 | 21.0 | 4.5 | 9.0 | N.R. | 4.1 | 22.8 | 22.8 | 7.9 | |
| 1939 | 10.1 | 4.0 | 14.1 | 13.4 | 6.8 | 7.4 | 5.7 | 5.3 | 26.5 | 26.5 | 12.2 | |
| 1940 | 4.3 | 2.3 | 5.9 | 16.5 | 3.1 | 3.6 | 1.8 | 5.5 | 20.5 | 20.5 | 3.1 | |
| 1941 | 6.8 | 4.0 | 14.1 | 19.3 | 8.7 | 13.4 | 8.6 | 8.1 | 36.3 | 36.3 | 10.5 | |
| 1942 | 6.6 | 3.5 | 7.0 | 22.4 | 4.8 | 6.8 | 5.9 | 6.3 | 18.1 | 18.1 | 6.8 | |
| 1943 | N.R. | 10.6 | 28.8 | 28.6 | 13.4 | 23.0 | 13.7 | 20.5 | 40.8 | 40.8 | 29.8 | |
| 1944 | 4.1 | 3.1 | 8.4 | 12.2 | 3.8 | 4.0 | 2.7 | 4.2 | 14.3 | 14.3 | 7.4 | |
| 1945 | 1.6 | 4.6 | 8.2 | 12.8 | 8.2 | 4.9 | 4.7 | 3.7 | 13.4 | 13.4 | 4.5 | |
| 1946 | 20.0 | 9.6 | 27.1 | 29.1 | 9.2 | 14.1 | 12.8 | 13.9 | 42.2** | 42.2** | 26.1 | |
| 1947 | 10.5 | 4.4 | 16.7 | 25.9 | 6.9 | 9.3 | 2.8 | 1.0 | 20.5 | 20.5 | 9.3 | |

Greatest and least Feb. 1 water content are underscored. N.R.-No report T-Trace *(Feb.15) **-(Jan.17)

STATUS OF SNOW COVER AS OF FEBRUARY FIRST
Summary of Snow Survey Data
By Watersheds as of About February First

| Stream Basin | Number Of Snow Courses Averaged | Average Water Depth in Snow Cover (Inches) | | | Yrs. Past Yrs. of Record | Yrs. of Rec- ord | 1947 Snow Water Depth (Inches) as Percent of that in | | |
|--------------------|--|---|------|------|-----------------------------------|---------------------------|---|------|------|
| | | 1947 | 1946 | 1945 | | | 1946 | 1945 | Avg. |
| Owyhee River | 1 | 6.6 | 15.4 | | | | 43 | | |
| | 1 | 6.6 | | 6.3 | | | | 105 | |
| | 1 | 6.6 | | | 9.0 | (6) | | | 73 |
| Malheur River | 3 | 3.9 | 8.8 | | | | 44 | | |
| | 3 | 3.9 | | 3.4 | | | | 115 | |
| | 3 | 3.9 | | | 6.0 | (9-16) | | | 65 |
| Burnt River | 3 | 5.3 | 9.5 | | | | 56 | | |
| | 3 | 5.3 | | 5.5 | | | | 96 | |
| | 3 | 5.3 | | | 6.4 | (8-13) | | | 83 |
| Powder River | 3 | 11.1 | 15.9 | | | | 70 | | |
| | 5 | 9.4 | | 6.1 | | | | 154 | |
| | 5 | 9.4 | | | 9.4 | (7-10) | | | 100 |
| Pine Creek | 1 | 18.0 | 30.2 | | | | 60 | | |
| | 1 | 18.0 | | 9.8 | | | | 184 | |
| | 1 | 18.0 | | | 19.0 | (9) | | | 95 |
| Grande Ronde River | 8 | 15.8 | 19.0 | | | | 83 | | |
| | 7 | 17.0 | | 8.3 | | | | 205 | |
| | 8 | 15.8 | | | 12.6 | (4-18) | | | 125 |
| Walla Walla River | 1 | 16.7 | 27.1 | | | | 62 | | |
| | 1 | 16.7 | | 8.2 | | | | 204 | |
| | 1 | 16.7 | | | 15.7 | (15) | | | 106 |
| Umatilla River | 4 | 8.2 | 14.3 | | | | 57 | | |
| | 4 | 8.2 | | 5.6 | | | | 146 | |
| | 4 | 8.2 | | | 8.6 | (8-18) | | | 95 |
| Willow Creek | 1 | 5.1 | 12.4 | | | | 41 | | |
| | 1 | 5.1 | | 5.4 | | | | 94 | |
| | 1 | 5.1 | | | 7.3 | (17) | | | 70 |
| John Day River | 7 | 6.2 | 11.2 | | | | 55 | | |
| | 8 | 6.1 | | 3.6 | | | | 169 | |
| | 8 | 6.1 | | | 6.6 | (7-17) | | | 92 |
| Deschutes River | 6 | 11.8 | 24.0 | | | | 49 | | |
| | 4 | 15.4 | | 5.3 | | | | 290 | |
| | 6 | 11.8 | | | 13.1 | (1-16) | | | 90 |
| Crooked River | 3 | 3.0 | 10.2 | | | | 29 | | |
| | 3 | 3.0 | | 3.6 | | | | 83 | |
| | 3 | 3.0 | | | 5.3 | (9-17) | | | 57 |
| Sandy River | 2 | 32.0 | 45.5 | | | | 70 | | |
| | 2 | 32.0 | | 6.4 | | | | 500 | |
| | 2 | 32.0 | | | 20.0 | (9) | | | 1.60 |

(Continued)

| Stream Basin | Number of Snow Courses Averaged | Average Water Depth in Snow Cover (Inches) | | | Yrs. of Rec- ord | 1947 Snow Water Depth (Inches) as Percent of that in | | |
|--------------------|--|---|------|------|---------------------------|---|------|------|
| | | 1947 | 1946 | 1945 | | 1946 | 1945 | Avg. |
| Clackamas River | 1 | 9.3 | 16.1 | | | 58 | | |
| | 1 | 9.3 | | 2.7 | | | 340 | |
| | 1 | 9.3 | | | 8.7 (9) | | | 107 |
| Willamette River | 6 | 13.0 | 25.5 | | | 51 | | |
| | 6 | 13.0 | | 4.9 | | | 265 | |
| | 6 | 13.0 | | | 12.8 (6-16) | | | 102 |
| Harney Basin | 4 | 2.7 | 7.6 | | | 36 | | |
| | 4 | 2.7 | | 2.4 | | | 112 | |
| | 4 | 2.7 | | | 4.6 (5-14) | | | 59 |
| Silver Lake Basin | 1 | T | 4.9 | | | 0 | | |
| | 1 | T | | 0.0 | | | 100 | |
| | 1 | T | | | 3.0 (7) | | | 0 |
| Warner Lake | 1 | 3.1 | 9.3 | | | 33 | | |
| | 1 | 3.1 | | 5.0 | | | 62 | |
| | 1 | 3.1 | | | 7.2 (8) | | | 43 |
| Umpqua River | 3 | 9.4 | 33.2 | | | 28 | | |
| | 2 | 7.3 | | 3.8 | | | 192 | |
| | 5 | 7.1 | | | 10.6 (3-18) | | | 67 |
| Upper Rogue River | 11 | 9.6 | 24.2 | | | 40 | | |
| | 11 | 11.1 | | 7.8 | | | 142 | |
| | 12 | 11.3 | | | 13.6 (1-15) | | | 83 |
| Applegate River | 3 | 8.3 | 19.1 | | | 43 | | |
| | 5 | 8.5 | | 4.4 | | | 193 | |
| | 5 | 8.5 | | | 13.3 (5-11) | | | 64 |
| Illinois River | 2 | 3.0 | 10.3 | | | 29 | | |
| | 2 | 3.0 | | 2.0 | | | 150 | |
| | 2 | 3.0 | | | 8.2 (9-11) | | | 36 |
| Klamath Lake Basin | 19* | 5.6 | 15.2 | | | 37 | | |
| | 19* | 7.2 | | 5.6 | | | 128 | |
| | 20* | 6.8 | | | 9.1 (1-20) | | | 75 |
| Goose Lake Basin | 3* | 3.2 | 9.3 | | | 34 | | |
| | 3* | 3.2 | | 5.0 | | | 64 | |
| | 3* | 3.2 | | | 5.9 (8-17) | | | 54 |

*Including Copco water measurement stations.

STATUS OF RESERVOIR STORAGE, February 1, 1947

| BASIN AND STREAM | RESERVOIR | USABLE CAPACITY (Thous.A.F.) | THOUSANDS ACRE FEET IN STORAGE ABOUT FEB.1 | | | | |
|-------------------------|----------------------------|------------------------------------|--|-------|-------|-------|-------------------------|
| | | | 1947 | 1946 | 1945 | 1944 | 10 year avg. 1936-45 |
| UPPER COLUMBIA DRAINAGE | | | | | | | |
| LOWER SNAKE IN OREGON | | | | | | | |
| <u>Owyhee</u> | Antelope | 36.5 | N.R. | N.R. | 3.2 | 0.0 | 4.0 ^d |
| | Owyhee | 715.0 | 467.4 | 561.0 | 403.0 | 481.3 | 497.6 |
| <u>Malheur</u> | Warm Springs | 191.0 | 96.3 | 80.4 | 35.3 | 111.8 | 81.4 |
| | Agency Valley | 60.0 | 33.6 | 38.7 | 41.9 | 40.8 | 32.6 |
| | Willow Creek | 26.0 | N.R. | N. R. | 10.6 | N.R. | 4.4 ^e |
| <u>Burnt</u> | Unity | 25.2 | 8.3 | 11.4 | 10.4 | 5.2 | 9.6 ^f |
| <u>Powder</u> | Thief Valley | 17.4 | 15.6 | 12.2 | 8.5 | 9.0 | 10.9 ^g |
| <u>Grande Ronde</u> | Wallowa Lake | 40.9 | 25.4 | 11.2 | 9.8 | 30.8 | 19.0 |
| LOWER COLUMBIA DRAINAGE | | | | | | | |
| <u>Umatilla</u> | McKay | 74.0 | 48.9 | 36.0 | 21.4 | 36.8 | 26.4 |
| | Cold Springs | 50.0 | 32.9 | 30.8 | 15.6 | 28.4 | 24.5 |
| <u>Deschutes</u> | Ochoco | 46.0 | 25.0 | 36.9 | 1.1 | 23.0 | 11.3 |
| | Crescent Lake | 80.0 | 49.1 | 30.1 | 31.0 | 51.8 | 32.5 |
| | Crane Prairie | 50.0 | 42.8 | 36.3 | 24.2 | 43.7 | 30.0 |
| | Wickiup | 180.0 | 58.2 | 39.0 | 45.0 | 0.0 | 16.6 ^h |
| <u>Willamette</u> | Cottage Grove ^b | 33.1 ^b | 0.2 | 0.0 | 0.2 | 0.8 | 1.1 ^h |
| | Fern Ridge ^b | 101.2 ^b | 6.2 | 1.0 | 1.7 | 3.6 | 22.6 ⁱ |
| WEST COAST DRAINAGE | | | | | | | |
| <u>Rogue</u> | Fish Lake | 7.7 | 4.0 | 3.7 | 3.2 | 6.9 | 4.4 |
| | Fourmile Lake ^a | 16.0 ^a | 4.5 | 4.9 | 6.7 | 11.5 | 7.0 |
| | Emigrant Gap | 8.2 | 2.3 | 8.2 | 1.6 | 1.5 | 4.6 |
| | Hyatt Prairie ^a | 16.0 ^a | 2.1 | 1.9 | 1.9 | 6.5 | 5.2 |
| <u>Klamath</u> | Upper Klamath Lake | 584.0 ^c | 243.8 | 388.5 | 178.7 | 305.6 | 352.0 |
| | Gerber | 94.0 | 29.2 | 31.6 | 34.2 | 44.6 | 39.4 |
| | Clear Lake | 440.2 | 203.2 | 252.2 | 227.8 | 293.6 | 182.3 |
| <u>Goose Lake</u> | Cottonwood | 4.1 | 0.0 | N.R. | 0.4 | 0.0 | 0.1 |
| | Drew | 62.5 | 24.8 | N.R. | 28.5 | 35.0 | 33.8 |

N.R.= No record

a = By ditch to Rogue River side
from Klamath drainage

b = Storage space reserved for flood control

c = Based on gage zero elevation of 4135.0

d = Excl. '36, '43

e = Excl. '36, '42, '44

f = 1939-45

g = 1937-45

h = 1943-45

i = 1942-45

j = Excl. '37, '38, '42

| CONTENTS | | ORIGINAL ARTICLES | | DEPARTMENTS | |
|----------|---|-------------------|---|-------------|---|
| 1 | 1 | 1 | 1 | 1 | 1 |

ORIGINAL ARTICLES

| | | | | | |
|----|----|----|----|----|----|
| 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 2 | 2 | 2 | 2 | 2 |
| 3 | 3 | 3 | 3 | 3 | 3 |
| 4 | 4 | 4 | 4 | 4 | 4 |
| 5 | 5 | 5 | 5 | 5 | 5 |
| 6 | 6 | 6 | 6 | 6 | 6 |
| 7 | 7 | 7 | 7 | 7 | 7 |
| 8 | 8 | 8 | 8 | 8 | 8 |
| 9 | 9 | 9 | 9 | 9 | 9 |
| 10 | 10 | 10 | 10 | 10 | 10 |

ORIGINAL ARTICLES

| | | | | | |
|----|----|----|----|----|----|
| 11 | 11 | 11 | 11 | 11 | 11 |
| 12 | 12 | 12 | 12 | 12 | 12 |
| 13 | 13 | 13 | 13 | 13 | 13 |
| 14 | 14 | 14 | 14 | 14 | 14 |
| 15 | 15 | 15 | 15 | 15 | 15 |
| 16 | 16 | 16 | 16 | 16 | 16 |
| 17 | 17 | 17 | 17 | 17 | 17 |
| 18 | 18 | 18 | 18 | 18 | 18 |
| 19 | 19 | 19 | 19 | 19 | 19 |
| 20 | 20 | 20 | 20 | 20 | 20 |

ORIGINAL ARTICLES

| | | | | | |
|----|----|----|----|----|----|
| 21 | 21 | 21 | 21 | 21 | 21 |
| 22 | 22 | 22 | 22 | 22 | 22 |
| 23 | 23 | 23 | 23 | 23 | 23 |
| 24 | 24 | 24 | 24 | 24 | 24 |
| 25 | 25 | 25 | 25 | 25 | 25 |
| 26 | 26 | 26 | 26 | 26 | 26 |
| 27 | 27 | 27 | 27 | 27 | 27 |
| 28 | 28 | 28 | 28 | 28 | 28 |
| 29 | 29 | 29 | 29 | 29 | 29 |
| 30 | 30 | 30 | 30 | 30 | 30 |

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IMPORTANT OREGON RESERVOIRS





- 7 -
VALLEY PRECIPITATION^a

| DIVISION | CURRENT YEAR | | LAST YEAR | |
|-------------------|-----------------------------|------|-----------------------------|-------|
| | Oct. 1, 1946 - Feb. 1, 1947 | | Oct. 1, 1945 - Feb. 1, 1946 | |
| | P | D | P | D |
| Southeastern | 3.5 | -0.8 | 4.94 | +0.77 |
| Southcentral | 5.9 | -1.4 | 8.54 | +1.72 |
| Northcentral | 4.6 | -0.8 | 9.28 | +3.17 |
| Columbia River | 4.7 | -1.4 | 6.99 | +0.89 |
| Wallowa Mountains | 6.2 | -0.2 | 6.69 | -0.38 |
| Blue Mountains | 8.6 | -0.3 | 8.87 | +0.69 |
| Southern | 11.2 | -1.6 | 17.22 | +4.75 |
| Willamette Valley | 30.4 | +2.1 | 34.83 | +6.86 |

P = Inches Precipitation

D = Inches Departure from Normal

- Southeastern - Southeastern Oregon range lands, Harney and Malheur Counties.
- Southcentral - Southcentral Oregon range lands, Lake County and Klamath County, except the Cascade Mountains.
- Northcentral - Northcentral Oregon wheat and range lands, Crook, Deschutes, Jefferson, Wheeler, and part of Grant Counties.
- Columbia River - Columbia River area, wheat and range lands, Gilliam, Morrow, Sherman, Wasco, and part of Umatilla Counties.
- Wallowa Mountains - Wallowa Mountain area, forest and range lands, Wallowa and part of Baker County.
- Blue Mountains - Blue Mountain forest and range lands, Union and parts of Baker, Grant, and Umatilla Counties.
- Southern - Southern Oregon irrigated section, Jackson and Josephine Counties.
- Willamette Valley - Parts of Polk, Benton, Yamhill, Washington, and Lane; all of Linn, Marion, Clackamas, and Multnomah Counties.

a. Data furnished by U. S. Weather Bureau

THE ANNALS OF THE AMERICAN PEOPLE

| Year | Volume | Number | Pages | Price | Author |
|------|--------|--------|----------|--------|-----------------|
| 1890 | 1 | 1 | 1-100 | \$1.00 | John A. Andrews |
| 1891 | 1 | 2 | 101-200 | \$1.00 | John A. Andrews |
| 1892 | 1 | 3 | 201-300 | \$1.00 | John A. Andrews |
| 1893 | 1 | 4 | 301-400 | \$1.00 | John A. Andrews |
| 1894 | 1 | 5 | 401-500 | \$1.00 | John A. Andrews |
| 1895 | 1 | 6 | 501-600 | \$1.00 | John A. Andrews |
| 1896 | 1 | 7 | 601-700 | \$1.00 | John A. Andrews |
| 1897 | 1 | 8 | 701-800 | \$1.00 | John A. Andrews |
| 1898 | 1 | 9 | 801-900 | \$1.00 | John A. Andrews |
| 1899 | 1 | 10 | 901-1000 | \$1.00 | John A. Andrews |

THE ANNALS OF THE AMERICAN PEOPLE, published by the American Historical Association, is a series of volumes containing the most important and interesting facts and events of American history, from the discovery of the continent to the present time. The series is published in ten volumes, each containing ten numbers, and is sold by subscription. The first volume, published in 1890, contains the history of the discovery of the continent, the early settlement, and the first century of the American people. The second volume, published in 1891, contains the history of the second century of the American people, from 1600 to 1700. The third volume, published in 1892, contains the history of the third century of the American people, from 1700 to 1800. The fourth volume, published in 1893, contains the history of the fourth century of the American people, from 1800 to 1850. The fifth volume, published in 1894, contains the history of the fifth century of the American people, from 1850 to 1890. The sixth volume, published in 1895, contains the history of the sixth century of the American people, from 1890 to the present time. The seventh volume, published in 1896, contains the history of the seventh century of the American people, from 1890 to the present time. The eighth volume, published in 1897, contains the history of the eighth century of the American people, from 1890 to the present time. The ninth volume, published in 1898, contains the history of the ninth century of the American people, from 1890 to the present time. The tenth volume, published in 1899, contains the history of the tenth century of the American people, from 1890 to the present time.

OREGON SNOW SURVEYS, FEBRUARY, 1947

| DRAINAGE BASIN and SNOW COURSE | | LOCATION | | SNOW COVER MEASUREMENTS | | | | | | | | |
|--------------------------------------|-----------------------|-------------------------|-----------------------|-------------------------|------------------------|---------------------|------------------|-------|-----------------------|----------------------------------|----|------|
| | | Number or State | Sec. Twp. Range Elev. | Date of Survey | Snow Depth (In.) | Water Content (In.) | | | Past Record | | | |
| | | | | | | 1947 | 1946 | 1945 | Years of Record | Av. Water Content (Inches) | | |
| | | UPPER COLUMBIA DRAINAGE | | | | | | | | | | |
| | | LOWER SNAKE INOREGON | | | | | | | | | | |
| OWYHEE RIVER | | | | | | | | | | | | |
| | South Mountain No. 2 | Idaho | 35 | 7S 5W | 6340 | 2-3 | 21.7 | 6.6 | 15.4 | 6.3 | 6 | 9.0 |
| MALHEUR RIVER | | | | | | | | | | | | |
| | Blue Mountain Springs | 133 | 21 | 15S 35E | 5900 | 1-30 | 39.1 | 9.3 | 14.1 | 4.9 | 16 | 9.6 |
| | Rock Spring | 134 | 23 | 18S 32E | 5100 | 1-31 | 12.4 | 2.3 | 6.0 | 2.7 | 11 | 4.6 |
| | Stinking Water | 135 | 33 | 21S 34E | 4800 | 2-1 | 2.0 ^a | Trace | 6.3 | 2.5 | 9 | 3.8 |
| BURNT RIVER | | | | | | | | | | | | |
| | Blue Mountain Summit | 141 | 6 | 12S 36E | 5098 | 1-31 | 25.6 | 5.1 | 9.5 | 3.4 | 12 | 5.6 |
| | Dooley Mountain | 156 | 32 | 11S 40E | 5430 | 2-3 | 14.4 | 3.9 | 9.8 | 4.8 | 8 | 6.4 |
| | Tipton | 142 | 34 | 10S 35½E | 5100 | 1-27 | 13.7 | 6.9 | 9.2 | 8.2 | 13 | 7.2 |
| POWDER RIVER | | | | | | | | | | | | |
| | Anthony Lake | 155 | 18 | 7S 37E | 7125 | 2-4 | 69.3 | *25.6 | 27.8 | 12.9 | 7 | 17.3 |
| | Bourne | 154 | 33 | 8S 37E | 5800 | 1-28 | 34.2 | 7.9 | - | 4.0 | 10 | 9.2 |
| | Dooley Mountain | 156 | 32 | 11S 40E | 5430 | 2-3 | 14.4 | 3.9 | 9.8 | 4.8 | 8 | 6.4 |
| | Elbertson Meadows | 151B | 18 | 8S 38E | 5400 | 1-31 | 17.6 | 3.7 | 10.1 | 3.7 | 9 | 7.1 |
| | Gold Center | 249 | 21 | 9S 36E | 5340 | 1-29 | 25.8 | 5.7 | - | 4.9 | 7 | 7.0 |
| PINE CREEK | | | | | | | | | | | | |
| | Schneider Meadows | 161 | 35 | 6S 45E | 5400 | 1-28 | 55.0 | 18.0 | 30.2 | 9.8 | 9 | 19.0 |

a - Estimated

*Telegraphic: subject to minor revision



OREGON SNOW SURVEYS, FEBRUARY, 1947

| DRAINAGE BASIN and SNOW COURSE | LOCATION | | SNOW COVER MEASUREMENTS | | | | | | |
|--------------------------------------|-----------------------|-----------------|-------------------------|----------------------|------------------------|---------------------|-----------|--------|-------------------------|
| | Number or State | Sec. Twp. Range | Elev. | Date of Survey | Snow Depth (In.) | Water Content (In.) | | | Past Record |
| | | | | | | 1947 | 1946 | 1945 | |
| | | | | | | | Same Date | Record | av. Content (Inches) |

GRANDE RONDE RIVER

| | | | | | | | | | | | | |
|--------------------|------|-------|----|-----|------|----------|------|-------|------|------|----|------|
| Aneroid Lake No. 1 | 183 | 16 | 4S | 45E | 7480 | 1-25 | 74.3 | 25.9 | 29.1 | 12.8 | 17 | 18.4 |
| Aneroid Lake No. 2 | 183A | 16 | 4S | 45E | 7000 | 1-25 | 56.5 | 20.5 | 23.3 | 8.3 | 5 | 17.0 |
| Anthony Lake | 155 | 18 | 7S | 37E | 7125 | 2-4 | 69.3 | *25.6 | 27.8 | 12.9 | 7 | 17.3 |
| Beaver Reservoir | 188 | 8 | 5S | 37E | 5340 | Abt. 2-1 | 22.5 | *7.8 | 8.7 | 3.9 | 8 | 7.8 |
| Camp Carson | 187 | 33 | 6S | 36E | 5970 | 2-1 | 31.9 | 7.4 | 8.0 | - | 4 | 5.3 |
| Meacham | 221 | 24&25 | 1S | 35E | 4300 | 1-27 | 14.3 | 4.4 | 9.6 | 4.6 | 18 | 5.8 |
| Moss Spring | 186A | 28 | 3S | 41E | 5850 | 1-31 | 66.1 | 17.8 | 18.7 | 7.6 | 9 | 13.4 |
| Tollgate | 212 | 32 | 4N | 38E | 5070 | 1-27 | 49.8 | 16.7 | 27.1 | 8.2 | 15 | 15.7 |

1
1

LOWER COLUMBIA DRAINAGE

WALLA WALLA RIVER

| | | | | | | | | | | | | |
|----------|-----|----|----|-----|------|------|------|------|------|-----|----|------|
| Tollgate | 212 | 32 | 4N | 38E | 5070 | 1-27 | 49.8 | 16.7 | 27.1 | 8.2 | 15 | 15.7 |
|----------|-----|----|----|-----|------|------|------|------|------|-----|----|------|

UMATILLA RIVER

| | | | | | | | | | | | | |
|------------------|-----|-------|----|-----|------|------|------|------|------|-----|----|------|
| Emigrant Springs | 222 | 29 | 1N | 35E | 3925 | 1-27 | 10.3 | 3.3 | 10.2 | 3.5 | 18 | 5.6 |
| Lucky Strike | 223 | 28 | 5S | 32E | 5050 | 1-28 | 29.6 | 8.2 | 10.4 | 6.0 | 8 | 7.3 |
| Meacham | 221 | 24&25 | 1S | 35E | 4300 | 1-27 | 14.3 | 4.4 | 9.6 | 4.6 | 18 | 5.8 |
| Tollgate | 212 | 32 | 4N | 38E | 5070 | 1-27 | 49.8 | 16.7 | 27.1 | 8.2 | 15 | 15.7 |

WILLOW CREEK

| | | | | | | | | | | | | |
|-------------------|-----|----|----|-----|------|------|------|-----|------|-----|----|-----|
| Arbuckle Mountain | 241 | 33 | 4S | 29E | 5400 | 1-31 | 25.2 | 5.1 | 12.4 | 5.4 | 17 | 7.3 |
|-------------------|-----|----|----|-----|------|------|------|-----|------|-----|----|-----|

*Telegraphic: subject to minor revision



OREGON SNOW SURVEYS, FEBRUARY, 1947

- 10 -

| DRAINAGE BASIN and SNOW COURSE | LOCATION | | SNOW COVER MEASUREMENTS | | | | | | | |
|--------------------------------------|-----------------------|-----------------|-------------------------|----------------------|------------------------|---------------------|-------------------|----------------------|---|------|
| | Number or State | Sec. Twp. Range | Elev. | Date of Survey | Snow Depth (In.) | Water Content (In.) | | | Past Record Av. Water Content (Inches) | |
| | | | | | | 1947 | 1948 Same Date | 1945 Approx. Date | | |
| JOHN DAY RIVER | | | | | | | | | | |
| Arbuckle Mountain | 241 | 33 4S | 5400 | 1-31 | 25.2 | 5.1 | 12.4 | 5.4 | 17 | 7.3 |
| Beech Creek Summit | 246A | 4 12S | 4800 | 1-31 | 11.2 | 1.8 | 7.4 | 1.6 | 10 | 4.0 |
| Blue Mountain Springs | 133 | 21 15S | 5900 | 1-30 | 39.1 | 9.3 | 14.1 | 4.9 | 16 | 9.6 |
| Blue Mountain Summit | 141 | 6 12S | 5098 | 1-31 | 25.6 | 5.1 | 9.5 | 3.4 | 12 | 5.6 |
| Gold Center | 249 | 21 9S | 5340 | 1-29 | 25.8 | 5.7 | - | 4.9 | 7 | 7.0 |
| Izee Summit | 964 | 28 16S | 5293 | 1-30 | 16.6 | 3.7 | 10.7 | 2.3 | 11 | 5.7 |
| Olive Lake | 245 | 14 9S | 6000 | 1-30 | 55.7 | 15.6 | 16.1 | 4.6 | 11 | 9.6 |
| Starr Ridge | 247B | 20 15S | 5150 | 1-30 | 11.8 | 2.6 | 8.0 | 1.7 | 11 | 4.0 |
| DESCHUTES RIVER | | | | | | | | | | |
| Caldwell Ranch | 326 | 30 21S | 4400 | 1-31 | 19.8 | 3.3 | 12.5 ^b | - | 6 | 5.2 |
| Cascade Summit | 321 | 7 23S | 4880 | 2-4 | 56.2 | *18.0 | 35.8 | 8.7 | 16 | 18.7 |
| Crescent Lake | 325 | 11 24S | 4760 | 2-4 | 15.1 | *4.2 | 19.2 | 1.9 | 11 | 8.5 |
| Derr | 343 | 14 13S | 5670 | 1-31 | 24.4 | 5.4 | 10.5 | 4.2 | 9 | 5.8 |
| Hogg Pass | 351 | 24 13S | 4755 | 2-3 | 87.2 | *29.1 | 42.0 | 9.0 | 9 | 21.0 |
| Marks Creek | 344 | 25 12S | 4540 | 1-30 | 5.2 | 0.7 | 7.3 | 1.8 | 9 | 3.4 |
| Ochoco Meadows | 341 | 21 13S | 5200 | 1-31 | 14.0 | 2.8 | 12.8 | 4.7 | 17 | 6.8 |
| Rock Creek | 362 | 1 4S | 4200 | 1-29 | 20.6 | 5.6 | 14.7 | - | 1 | 14.7 |
| Three Creeks Meadows | 331 | 3 17S | 5600 | 2-2 | 39.8 | *10.5 | 20.0 | 1.6 | 15 | 10.7 |
| SANDY RIVER | | | | | | | | | | |
| Phlox Point - Mt. Hood | 452 | 6 3S | 5600 | Abt. 2-1 | 127.8 | *49.2 | 63.0 | 10.0 | 9 | 29.7 |
| Still Creek | 451 | 25 3S | 3700 | Abt. 2-1 | 40.4 | *14.9 | 28.0 | 2.9 | 9 | 10.4 |
| CLACKAMAS RIVER | | | | | | | | | | |
| Peavine Ridge | 591 | 14&15 6S | 3500 | 2-5 | 31.1 | 9.3 | 16.1 | 2.7 | 9 | 8.7 |

b - January 14

* Telegraphic: subject to minor revision

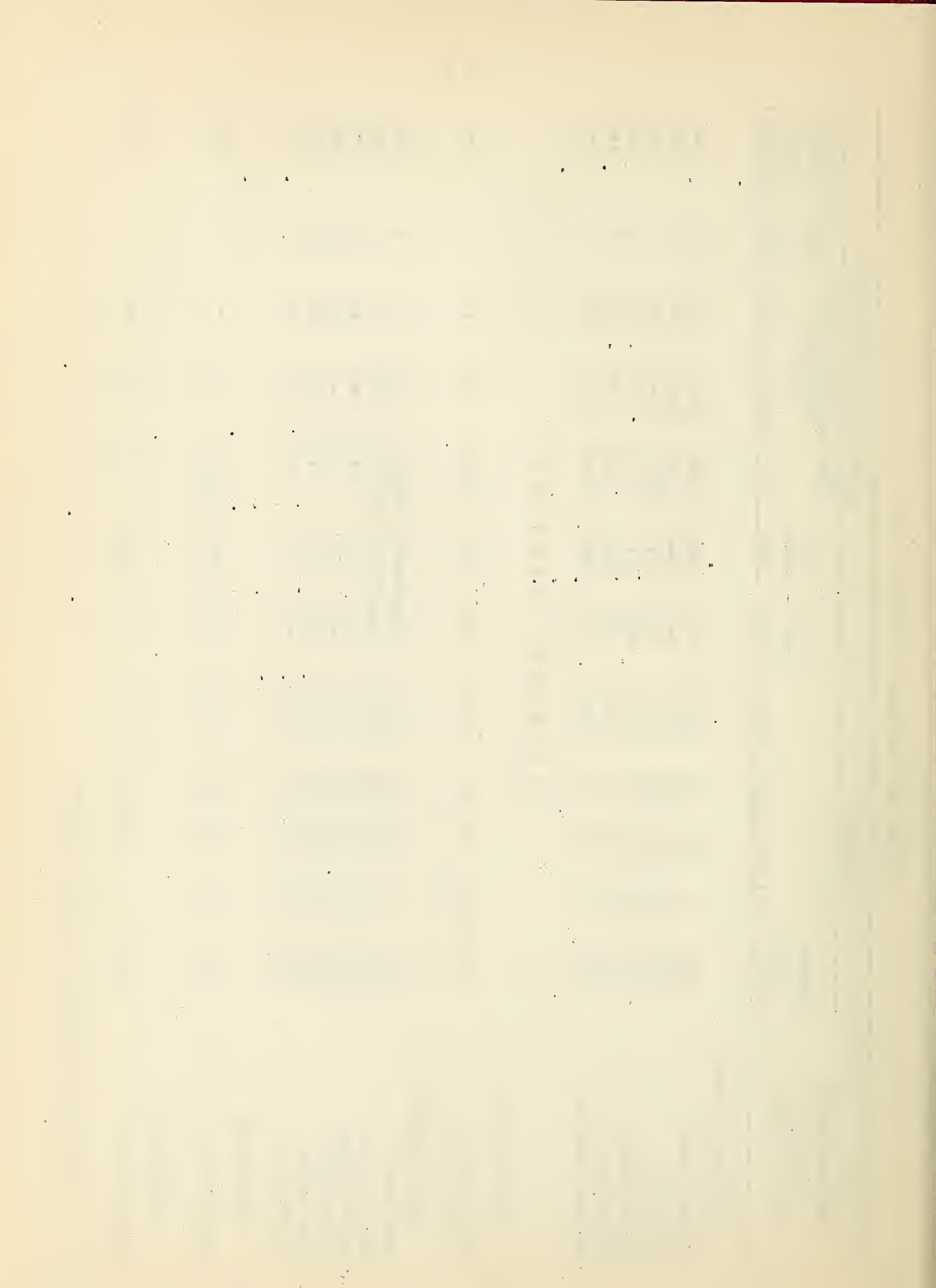
* Telegraphic: subject to minor revision

b - January 14

OREGON SNOW SURVEYS, FEBRUARY, 1947

| DRAINAGE BASIN and SNOW COURSE | LOCATION | | | SNOW COVER MEASUREMENTS | | | | | | | | | |
|--------------------------------------|-----------------------|-----------------|-------|-------------------------|------------------------|---------------------|-------|-------|-----------------------|-------------|----------------------------------|------|--|
| | Number or State | Sec. Twp. Range | Elev. | Date of Survey | Snow Depth (In.) | Water Content (In.) | | | Years of Record | Past Record | | | |
| | | | | | | 1947 | 1946 | 1945 | | Same Date | Av. Water Content (Inches) | | |
| WILLAMETTE RIVER | | | | | | | | | | | | | |
| Cascade Summit | 321 | 7 | 23S | 6E | 4880 | 2-4 | 56.2 | *18.0 | 35.8 | 8.7 | 16 | 18.7 | |
| Champion | 522 | 12 | 23S | 1E | 4500 | 1-30 | 36.4 | 5.3 | 23.3 | 3.2 | 8 | 12.8 | |
| Hogg Pass | 351 | 24 | 13S | 7½E | 4755 | 2-3 | 87.2 | *29.1 | 42.0 | 9.0 | 9 | 21.0 | |
| Marion Forks | 553 | 28 | 11S | 7E | 2730 | 2-3 | 27.3 | * 7.7 | 13.8 | 0.6 | 6 | 7.0 | |
| Mary's Peak | 541 | 21 | 12S | 7W | 3620 | 1-28 | 15.8 | 2.9 | 8.6 | 4.1 | 7 | 4.9 | |
| Santiam Junction | 552 | 14 | 13S | 7E | 3990 | 2-3 | 47.0 | *15.0 | 24.5 | 3.9 | 6 | 12.7 | |
| IN T E R I O R D R A I N A G E | | | | | | | | | | | | | |
| SILVER LAKE | | | | | | | | | | | | | |
| Silver Creek | 942 | 25&26 | 29S | 13E | 4900 | 1-29 | Trace | Trace | 4.9 | 0.0 | 7 | 3.0 | |
| HARNEY BASIN | | | | | | | | | | | | | |
| Deer Creek | 973 | 17 | 36S | 26E | 6670 | Measurement Delayed | | | 5.9 | - | 5 | 4.9 | |
| Hart Mountain | 971 | 1 | 36S | 25E | 6350 | Measurement Delayed | | | 0.9 | - | 5 | 2.3 | |
| Idylwild Park | 961A | 33 | 20S | 31E | 5200 | 2-1 | 12.4 | 2.2 | 5.5 | 2.8 | 14 | 3.9 | |
| Izee Summit | 964 | 28 | 16S | 29E | 5293 | 1-30 | 16.6 | 3.7 | 10.7 | 2.3 | 11 | 5.7 | |
| Rock Spring | 134 | 23 | 18S | 32E | 5100 | 1-31 | 12.4 | 2.3 | 6.0 | 2.7 | 11 | 4.6 | |
| Starr Ridge | 247B | 20 | 15S | 31E | 5150 | 1-30 | 11.8 | 2.6 | 8.0 | 1.7 | 11 | 4.0 | |
| GUANO LAKE | | | | | | | | | | | | | |
| Guano Creek | 972 | 13 | 36S | 25E | 6480 | Measurement Delayed | | | 4.6 | - | 5 | 4.6 | |
| WARNER LAKE | | | | | | | | | | | | | |
| Canas Creek | 911A | 5 | 39S | 21E | 5720 | 1-30 | 16.4 | 3.1 | 9.3 | 5.0 | 8 | 7.2 | |

* Telegraphic: subject to minor revision



OREGON SNOW SURVEYS, FEBRUARY, 1947

| DRAINAGE BASIN and SNOW COURSE | | LOCATION | | SNOW COVER MEASUREMENTS | | | | | | | |
|--------------------------------------|-----------------|----------|----------------------|-------------------------|---------------------|------|-------------------|---|------|----|------|
| Number or State | Sec. Twp. Range | Elev. | Date of Survey | Snow Depth (In.) | Water Content (In.) | | | Fast Record Years Av. Water of Content | | | |
| | | | | | 1947 | 1946 | 1945 | | | | |
| UMPQUA RIVER | | | | | | | | | | | |
| 522 | 12 | 23S | 1E | 4500 | 1-30 | 36.4 | 5.3 | 28.3 | 3.2 | 8 | 12.8 |
| 743 | 29 | 27S | 6E | 5315 | 1-29 | 33.3 | 9.3 | 26.1 | 4.5 | 18 | 12.5 |
| 742 | 19 | 26S | 6E | 4215 | 1-28 | 10.8 | 3.8 | - | - | 3 | 3.0 |
| 741 | 1 | 27S | 4E | 3800 | 1-28 | 14.2 | 3.8 | - | - | 3 | 3.0 |
| 7217 | 3 | 31S | 2E | 5140 | 1-30 | 55.3 | 13.5 | 45.3 | - | 8 | 21.6 |
| ROGUE RIVER | | | | | | | | | | | |
| 7216 | 17 | 41S | 7W | 4400 | 1-31 | 12.6 | 2.2 | 2.5 | 0.8 | 9 | 1.9 |
| 831 | 19 | 51S | 6E | 6013 | 1-27 | 54.4 | 20.5 | 42.2 ^b | 13.4 | 14 | 26.3 |
| 729 | 31 | 40S | 1W | 6500 | 2-4 | 43.4 | 14.1 | 24.6 | 6.6 | 11 | 16.8 |
| 722 | 30 | 36S | 5E | 6000 | 1-28 | 29.8 | 9.8 | 24.8 | 9.5 | 15 | 14.6 |
| 725 | 3 | 37S | 4E | 4865 | 1-29 | 19.1 | 6.0 | 16.8 | 3.5 | 13 | 8.8 |
| 727 | 9 | 40S | 5W | 6000 | 1-31 | 15.0 | 3.9 | 18.1 | 3.2 | 11 | 14.5 |
| 723 | 15 | 39S | 3E | 4900 | 1-30 | 16.0 | 2.9 | 11.0 | 2.2 | 12 | 6.6 |
| 7210 | 25 | 40S | 2W | 6500 | 2-4 | 28.9 | 10.2 | - | 2.5 | 10 | 10.5 |
| 838 | 8 | 31S | 6E | 6450 | 1-27 | 78.4 | 29.9 | - | 18.4 | 1 | 18.4 |
| 7220 | 9 | 47N | 10W | 6200 | 1-25 | 18.1 | 7.3 | - | 5.3 | 5 | 15.4 |
| 7211 | 3 | 34S | 5E | 6800 | 1-30 | 70.2 | 21.1 ^c | 48.0 | 17.5 | 7 | 25.9 |
| 7212 | 26 | 33S | 5E | 6200 | 1-29 | 58.0 | 17.4 ^c | 43.7 | 12.2 | 7 | 19.3 |
| 7219 | 30 | 30S | 4E | 3720 | 1-31 | 20.7 | 3.7 | 11.8 | 2.5 | 9 | 6.4 |
| 728 | 17 | 40S | 2E | 4630 | 1-27 | 8.5 | 1.9 | 5.1 | 1.2 | 10 | 4.6 |
| 7218 | 12 | 33S | 3E | 3500 | 2-1 | 13.0 | 2.3 | 2.4 | 0.8 | 9 | 1.6 |
| 7213 | 1 | 40S | 1W | 6900 | 1-31 | 27.6 | 7.0 | 14.6 | 4.3 | 11 | 9.5 |
| 7217 | 3 | 31S | 2E | 5140 | 1-30 | 56.3 | 13.5 | 45.3 | - | 8 | 21.6 |

b - January 17

c - Water content partly estimated

OREGON SNOW SURVEYS, FEBRUARY, 1947

| DRAINAGE BASIN and SNOW COURSE | LOCATION | | SNOW COVER MEASUREMENTS | | | | | | | | | | |
|--------------------------------------|-----------------------|-----------------|-------------------------|----------------------|------------------------|---------------------|------|----------------------|---|------|----|------|--|
| | Number or State | Sec. Twp. Range | Elev. | Date of Survey | Snow Depth (In.) | Water Content (In.) | | | Past Record Years Av. Water of Content Record (Inches) | | | | |
| | | | | | | 1947 | 1946 | Date Same Approx. | | | | | |
| KLAMATH LAKE BASIN | | | | | | | | | | | | | |
| Annie Spring | 831 | 19 | 31S | 6E | 6018 | 1-27 | 54.4 | 20.5 | 42.2 ^b | 13.4 | 14 | 26.3 | |
| Beatty 2/ | | 22 | 36S | 12E | 4300 | 1-31 | 5.5 | 1.0 | 0.3 | 0.0 | 19 | 0.8 | |
| Billie Creek Divide | 722 | 30 | 36S | 5E | 6000 | 1-28 | 29.8 | 9.8 | 24.8 | 9.5 | 15 | 14.6 | |
| Bly 101 Ranch 2/ | | 22 | 35S | 14E | 4800 | 1-31 | 6.0 | 0.8 | 1.2 | 0.2 | 20 | 2.0 | |
| Chemult No. 1 | 834 | 21 | 27S | 8E | 4760 | 1-31 | 11.4 | 1.0 | 13.9 | 3.7 | 10 | 7.9 | |
| Chiloquin 2/ | | 34 | 34S | 7E | 4187 | 1-31 | 6.0 | 0.8 | 1.0 ^a | 0.0 | 17 | 2.1 | |
| Crowder Flat (Calif.) | | 30 | 47N | 11E | 5200 | 1-31 | 3.9 | 0.6 | 5.0 | - | 7 | 3.1 | |
| Crystal 2/ | | 26 | 34S | 6E | 4200 | 1-31 | 18.0 | 3.0 | 10.8 | 3.2 | 17 | 6.3 | |
| Fort Klamath 2/ | | 22 | 33S | 7½E | 4150 | 1-31 | 7.5 | 1.1 | 1.8 | 1.2 | 20 | 3.8 | |
| Harriman Lodge 2/ | | 3 | 36S | 6E | 4200 | 1-31 | 14.5 | 2.4 | 3.5 | 1.1 | 20 | 3.7 | |
| Hyatt Prairie Reservoir | 723 | 15 | 39S | 3E | 4900 | 1-30 | 16.0 | 2.9 | 11.0 | 2.2 | 12 | 6.6 | |
| Kirk 2/ | | 1 | 33S | 7E | 4533 | 1-31 | 8.0 | 1.9 | 11.0 | 0.8 | 20 | 5.3 | |
| Lake of the Woods No. 1 | 835 | 11 | 37S | 5E | 4960 | 1-31 | 17.0 | 3.9 | 11.0 | 3.3 | 10 | 5.5 | |
| Park Headquarters | 838 | 8 | 31S | 6E | 6450 | 1-27 | 73.4 | 29.9 | - | 18.4 | 1 | 18.4 | |
| Quartz Mountain | 811 | 2 | 38S | 16E | 5320 | 1-31 | 9.2 | 2.6 | 7.9 | 4.8 | 17 | 5.1 | |
| Quartz Mountain 2/ | | 33 | 37S | 16E | 5504 | 1-31 | 12.0 | 4.0 | 10.8 | 5.2 | 17 | 5.4 | |
| Seven Lakes No. 1 | 7211 | 3 | 34S | 5E | 6800 | 1-30 | 70.2 | 21.1 ^c | 48.0 | 17.5 | 7 | 25.9 | |
| Seven Lakes No. 2 | 7212 | 26 | 33S | 5E | 6200 | 1-29 | 58.0 | 17.4 ^c | 43.7 | 12.2 | 7 | 19.3 | |
| Sun Mountain | 836 | 22 | 32S | 7½E | 5350 | abt. 1-31 | 45.4 | 11.8 | 33.0 | 7.6 | 9 | 16.6 | |
| Taylor Butte | 842 | 16 | 33S | 11E | 5100 | 1-30 | 4.8 | 0.6 | 8.4 | 1.5 | 10 | 3.7 | |
| GOOSE LAKE BASIN | | | | | | | | | | | | | |
| Camas Creek | 911A | 5 | 39S | 21E | 5720 | 1-30 | 16.4 | 3.1 | 9.3 | 5.0 | 8 | 7.2 | |
| Quartz Mountain | 811 | 2 | 38S | 16E | 5320 | 1-31 | 9.2 | 2.6 | 7.9 | 4.8 | 17 | 5.1 | |
| Quartz Mountain 2/ | | 33 | 37S | 16E | 5504 | 1-31 | 12.0 | 4.0 | 10.8 | 5.2 | 17 | 5.4 | |

a - estimated

b - January 17

c - Water content partly estimated

The following organizations cooperate in the Oregon snow survey work:

STATE

Idaho Cooperative Snow Surveys
Nevada Cooperative Snow Surveys
Oregon Agricultural Experiment Station
Oregon State Engineer and corps of State Watermasters
Oregon State Highway Engineers

FEDERAL

Department of Agriculture
 Forest Service
 Soil Conservation Service
Department of Commerce
 Weather Bureau
Department of the Interior
 Bonneville Power Administration
 Bureau of Reclamation
 Fish and Wildlife Service
 Geological Survey
 Indian Service
 National Park Service
War Department
 Army Engineer Corps

PUBLIC UTILITIES

California-Pacific Utilities Company
Portland General Electric Company
The California Oregon Power Company

MUNICIPALITIES

City of Corvallis
City of LaGrande
City of The Dalles

IRRIGATION DISTRICTS

Associated Ditch Companies
Central Oregon Irrigation District
Deschutes County Municipal Improvement District
Grants Pass Irrigation District
Jordan Valley Irrigation District
Lakeview Water Users Incorporated
Medford Irrigation District
Ochoco Irrigation District
Rogue River Irrigation District
Talent Irrigation District
Vale-Oregon Irrigation District
Warm Springs Irrigation District

PRIVATE CORPORATIONS

Amalgamated Sugar Company



